LISTING OF CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the above-identified application:

B ¹

Claim 1 (Withdrawn)

Claim 2. (Currently amended): A method for analyzing the structure of ~~an~~ a target array consisting of a plurality of different kinds of elements, the method comprising the steps of:

(a) converting the target array into a first array, including the steps of:

(i) replacing ~~changing~~ a variable that is included in ~~a~~ the target array into information that represents a location of the same variable if it is present upstream with respect to said variable when the target array is viewed along a path extending in a predetermined direction ~~consisting of a combination of a plurality of different kinds of elements and that is replaceable of another element into information that represents the location of the same variable when said target array is viewed along a path extending in a predetermined direction, and when said same variable is present upstream of said replaceable variable~~;

(ii) replacing said variable into information that indicates if that said same variable is not present upstream with respect to the said variable ~~changing, when said same variable is not present upstream of said replaceable variable in said target array, all the variables in said target array into information indicating that said same variable is not present, and thus changing said target array into a first array~~; and

G:\Ibm\105\14043\amend\14043.am2.doc

(iii) repeating steps (i)-(ii) for all the other variables included in the target array; and

(b) converting ~~changing~~ said target array into a second array, including the steps of: ~~by using the method according to claim 1~~

(i) replacing a variable that is included in the target array to information that represents a location of said variable with respect to a different complementary variable present upstream with respect to said variable when the target array is viewed along a path extending in a predetermined direction;

(ii) replacing said variable to information that indicates if no other different complementary variable is present upstream with respect to said variable; and

(iii) repeating steps (i)-(ii) for all the other variables included in the target array; and

(c) analyzing the structure of ~~said~~ the target array by using ~~said~~ the first array and ~~said~~ the second array.

Claims 3-11 (Withdrawn).

Claim 12 (New): A method for analyzing the structure of a target array including a plurality of different elements, the method comprising the steps of:

(a) converting the target array into a first array by traversing the target in a predetermined direction and replacing a first occurrence of each variable with information that indicates that that it is the first occurrence and replacing each subsequent occurrence

-3-

of each variable with information that represents a location of the subsequent occurrence of each variable in the target array relative to a prior occurrence of each variable in the target array;

(b) converting the target array into a second array by traversing the target in a predetermined direction and replacing a first occurrence of each variable with information that indicates that that it is the first occurrence, replacing a next occurrence of a variable that is a complement to the first occurrence of each variable with information that represents a location of the next occurrence of the variable in the target array relative to the first occurrence of each variable, and replacing each subsequent occurrence of a variable having a previous occurrence of its complement with information that represents a location of the subsequent occurrence of the variable relative to the previous occurrence of its complement; and

(c) analyzing the structure of the target array by using the first array and the second array.

-4-

G:\Ibm\105\14043\amend\14043.am2.doc